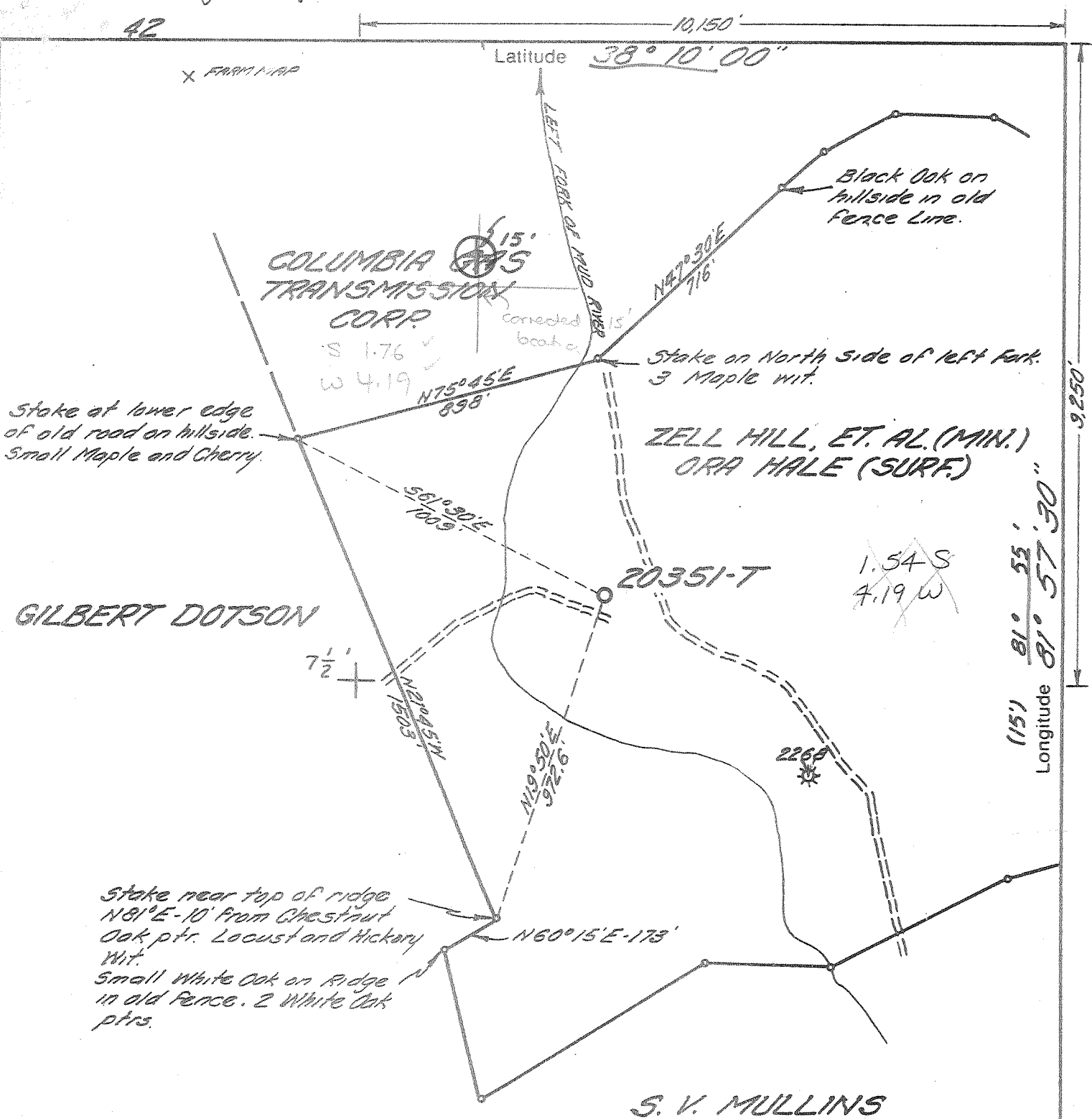


42

10,150'

Latitude 38° 10' 00"

X FARM MAP



BENCH MARK DESCRIPTION

Standard U.S.G.S. Disk set in top of Southwest end of Southeast headwall of Partial Plug 2/17/79 of a 15' Concrete Bridge across left Fork of Mud River of Bulger 5' below road level. Stamped Q-153-7957 Elev. 811.60'

REVISIED
6-18-76

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by the rules and regulations of the oil and gas section of the mining laws of W. VA. Minimum degree of accuracy is one part in 200

ENGR. REG. NO. 2330
BOX 1273 CHARLESTON, W.VA.

Signed Adrian E. Hardman

Company COLUMBIA GAS TRANSMISSION CORP.
 Address BOX 1273 CHARLESTON, W.VA.
 Farm ZELL HILL, ET AL.
 Lease 24645 Acres 200
 Well Farm No. 3 Ser. No. 20351-T
 Elevation - Spirit Level 786.04' WC
 Quadrangle GRIFFITHSVILLE MADISON 15'
 Township or District JEFFERSON
 County LINCOLN
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LONG. - 81° 59' 38" LAT. - 38° 08' 28"
 File No. 42-43 Dwg. No. _____
 Date 6-18-76 Scale 1" = 400'

**WELL LOCATION MAP
STATE OF WEST VIRGINIA**

(+) Denotes Values Of Well On United States Topographic Maps

LIN-1748-PP

Scale 15' □ 7 1/2' ■

Deep Well
47-043

MAR 2 1977

Latitude 38° 10' 00"

X FARM MAP

38 08 40
81 59 35

COLUMBIA GAS TRANSMISSION CORP.

Stake at lower edge of old road on hillside. Small Maple and Cherry.

GILBERT DOTSON

7 1/2'

Stake near top of ridge N81°E-10' from Chestnut Oak ptr. Locust and Hickory wit. Small White Oak on Ridge in old fence. 2 White Oak ptrs.

LEFT FORK OF MUD RIVER

Black Oak on hillside in old Fence Line.

Stake on North side of left fork. 3 Maple wit.

ZELL HILL, ET. AL. (MIN.)
ORA HALE (SURF.)
1.55S
4.17W

20351-T

S. V. MULLINS

BENCH MARK DESCRIPTION

Standard U.S.G.S. Disk set in top of Southwest end of Southeast headwall of a 15' Concrete Bridge across left fork of Mud River of Bulger 5' below road level. Stamped Q-153-1957 Elev. 811.60'

REVISED
6-18-76

- New Location
- Storage
- Drill Deeper
- Abandonment
- Re-Drill/Fracture

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by the rules and regulations of the oil and gas section of the mining laws of W. VA. Minimum degree of accuracy is one part in 200

ENGR. REG. NO. 2330
BOX 1273 CHARLESTON, W.VA.

Signed Adrian E. Helderberg

Company COLUMBIA GAS TRANSMISSION CORP.
 Address BOX 1273 CHARLESTON, W.VA.
 Farm ZELL HILL, ET. AL.
 Lease 20645 Acres 200
 Well Farm No. 3 Ser. No. 20351-T
 Elevation - Spirit Level 786.04' WC
 Quadrangle GRIFFITHSVILLE MADISON 15'
 Township or District JEFFERSON
 County LINCOLN
 Sec., Lot, Qr. _____ T _____ R _____
 Coordinates LONG. - 81° 59' 38" LAT. 38° 08' 28"
 File No. 42-43 Dwg. No. _____
 Date 6-18-76 Scale 1" = 400'

**WELL LOCATION MAP
STATE OF WEST VIRGINIA**

(+) Denotes Values Of Well On United States Topographic Maps

LIN-1748 - PP

Scale 15' 7 1/2'

(Helderberg) Deep Well
47-043

RECEIVED

MAR 18 1977



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

OIL & GAS DIVISION
DEPT. OF MINES

Rotary
Spudder
Cable Tools
Storage

Oil or Gas Well Gas
(KIND)

WELL RECORD

Quadrangle Griffithsville
Permit No. LIN-1748

Company Columbia Gas Transmission Corporation
Address P.O. Box 1273, Charleston, W. Va.
Farm Zell Hill Acres 200
Location (waters) Left Fork of Mud River
Well No. 20351-T Elev. 786.04'
District Jefferson County Lincoln
The surface of tract is owned in fee by Ora Hale
Address Woodville, W. Va.
Mineral rights are owned by Zell Hill, et al
Address Alkol, W. Va.
Drilling commenced February 1, 1977
Drilling completed February 10, 1977
Date Shot 2-12-77 From 3002' To 3502'
With 5300# Dev. Shale

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			Anchor
13-3/8"	99'	99'	Size of
10			4-1/2"x7-1/2"
8-5/8"	1579'	1579'	Depth set 1826'
6 3/4"			
5 3/16"			
4 1/2"	1826'	1826'	Perf. top 1653'
3-1/2"	1709'	1709'	Perf. bottom 1656'
2			Perf. top 1675'
Liners Used			Perf. bottom 1678'

Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.

Attach copy of cementing record.
CASING CEMENTED 13-3/8" SIZE 99 No. Ft. 2-2-77 Date
Amount of cement used (bags) 8-5/8" 1579' 2-7-77
Name of Service Co. 4-1/2" 1826' 2-13-77
COAL WAS ENCOUNTERED AT 460 FEET 36 INCHES
FEET _____ INCHES FEET _____ INCHES
FEET _____ INCHES FEET _____ INCHES

WELL ACIDIZED (DETAILS) _____
WELL FRACTURED (DETAILS) Fractured Injun Sand 2-24-77 with 27,500# 20/40 sand and 442 bbls. water

RESULT AFTER TREATMENT (Initial open Flow or bbls.) Final Open Flow Injun and Shale 260 MCF
ROCK PRESSURE AFTER TREATMENT 202 HOURS 48
Fresh Water 25 Feet Salt Water _____ Feet
Producing Sand Injun & Shale Brown Depth 4322' plugged back to 3502'

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
B to GL			0	12			LOGGED BY BIRDWELL
Clay			12	60	Water @ 25'		Sibilation 2-10-77
and			60	125			Density 2-11-77
Shale			125	160			Gamma Ray 2-11-77
and			160	235			Induction 2-11-77
Shale			235	460			
Coal			460	463			
Shale			463	470			
and			470	580			
Shale			580	625			
and			625	1005			
Lime			1005	1160			
Salt Sand			1160	1420			
Red Rock			1420	1430			
Slate			1430	1480			
Little Lime			1480	1517			
Pencil Cave			1517	1520			
Big Lime			1520	1650			
Injun			1650	1675			
Shale			1675	2120			
Coffee Shale			2120	2140			
Serea			2140	2170			
Shale			2170	3615			
Sandy Shale			3615	3640	Wet		
Shale			3640	4143			
Lime			4143	4268			
Driskany			4268	4280			
Lime HELDER DEER			4280	4332			
TOTAL DEPTH			4332	plugged back to 3502'			

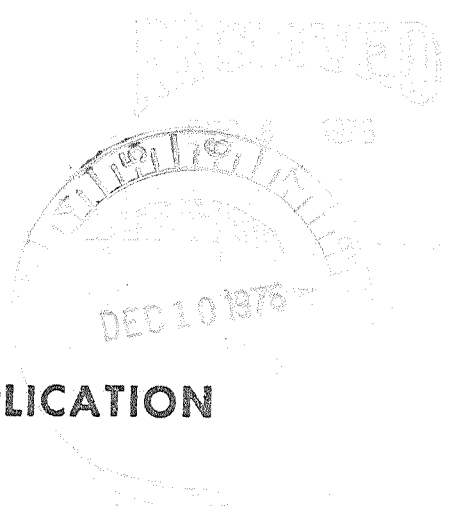
APR 1 1977



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION



TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE December 1, 1976

Surface Owner Ora Hale

Company Columbia Gas Trans. Corp.

Address Woodville, W. Va. 25572

Address P.O. Box 1273, Charleston, W. Va.

Mineral Owner Zell Hill et al

Farm Zell Hill Acres 200

Address Alkol, W. Va. 25501

Location (waters) Left fk. Mud River

Coal Owner Same as above

Well No. 20351-T Elevation 786.04

Address _____

District Jefferson County Lincoln

Coal Operator Not Operated

Quadrangle Griffithsville

Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

Conditions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 4-9-77.

INSPECTOR TO BE NOTIFIED Mr. Kenneth Butcher

ADDRESS RFD #1, Barboursville, W. Va. 25504

PHONE 736-4885

[Signature]
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated November 22 1907 by S.A. & Martha J. Egnor made to South Penn Oil Co. and recorded on the 24th day of January 1908 in Lincoln County, Book 36 Page 204

NEW WELL DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Address of Well Operator

Very truly yours, COLUMBIA GAS TRANS. CORP.

(Sign Name) *[Signature]*
Well Operator

Director, Exploration & Development

P.O. Box 1273
Street

Charleston
City or Town

West Virginia 25325
State

State

*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

LIN-1748 PERMIT NUMBER

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by *[Signature]*
Director, Exploration and Development

47-043

THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO X DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME _____ NAME Mr. John M. Foster
 ADDRESS _____ ADDRESS P.O. Box 1273, Charleston, W. Va.
 TELEPHONE _____ TELEPHONE (304) 346-0951 25325
 ESTIMATED DEPTH OF COMPLETED WELL: 4400 ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 TYPE OF WELL: OIL _____ GAS X COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 XX 3/8"	60'		
9 - 5/8			
8 - 5/8	1450'		
7			
5 1/2			
4 1/2	4400'		
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS _____
 IS COAL BEING MINED IN THE AREA? No BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title